6CU5

Beam Power Tube

7-PIN MINIATURE TYPE

GENERAL DATA

Electrical: ←

Heater, for Unipotential Cathode:		
Voltage (AC or DC)	6.3 ± 10%	volts
Current at 6.3 volts	1.2	amp
Direct Interelectrode Capacitances (Approx.):[a]		
Grid No.1 to plate	0.6	μμf
Grid No.1 to cathode & grid No.3, grid No.2, and heater	13	μμf
Plate to cathode & grid No.3, grid No.2, and heater	8.5	μμf

Mechanical:

Operating Position . . . . Any
Maximum Overall Length . . . . 2-5/8"
Maximum Seated Length . . . . 2-3/8"
Length, Base Seat to Bulb Top (Excluding tip) . . 2" ± 3/32"
Diameter . . . . 0.650" to 0.750"
Dimensional Outline . . . . See *General Section*
Bulb T5-1/2
Base . . . . . . Small-Button Miniature 7-Pin (JEDEC No.E7-1)
Basing Designation for BOTTOM VIEW 7CV

Pin 1 - Cathode, Grid No.3
Pin 2 - Grid No.1
Pin 3 - Heater
Pin 4 - Heater
Pin 5 - Grid No.1
Pin 6 - Grid No.2
Pin 7 - Plate

AMPLIFIER — Class A_1

Maximum Ratings, *Design-Maximum Values:* ←

PLATE VOLTAGE	150	max.	volts
GRID-No.2 (SCREEN-GRID) VOLTAGE	130	max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:			
Positive-bias value	0	max.	volts
PLATE DISSIPATION	7	max.	watts
GRID-No.2 INPUT	1.4	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200[b]	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface)	220	max.	°C

← Indicates a change.

Typical Operation and Characteristics:

Plate Voltage	120	volts
Grid-No.2 Voltage	110	volts
Grid-No.1 Voltage	-8	volts
Peak AF Grid-No.1 Voltage	8	volts
Zero-Signal Plate Current	49	ma
Max.-Signal Plate Current	50	ma
Zero-Signal Grid-No.2 Current	4	ma
Max.-Signal Grid-No.2 Current	8.5	ma
Plate Resistance (Approx.)	10000	ohms
Transconductance	7500	μmhos
Load Resistance	2500	ohms
Total Harmonic Distortion	10	%
Max.-Signal Power Output	2.3	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.1 max.	megohm
For cathode-bias operation	0.5 max.	megohm

[a] Without external shield.
[b] The dc component must not exceed 100 volts.



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AVERAGE CHARACTERISTICS

Ef = 6.3 VOLTS
GRID-No 2 VOLTS = 110

GRID-No 1 VOLTS (Ec1) = 0, -2, -4, -6, -8, -10, -12, -14
Ec1 = 0
Ib
Ic2

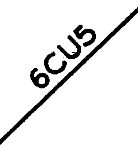
PLATE VOLTS: 0, 50, 100, 150, 200, 250

PLATE (Ib) OR GRID-No 2 (Ic2) MILLIAMPERES: 140, 120, 100, 80, 60, 40, 20, 0

TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-8908R1





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OPERATION CHARACTERISTICS

E_f=6.3 VOLTS PLATE VOLTS=120 GRID-№2 VOLTS=110
GRID-№1 VOLTS=-8 SIGNAL VOLTS (RMS)=5.7

POWER OUTPUT-WATTS
2.5
2.0
1.5
1.0
0.5
0

POWER OUTPUT
PLATE CURRENT

MAXIMUM-SIGNAL PLATE MILLIAMPERES
MAXIMUM-SIGNAL GRID-№2 MILLIAMPERES
60
55
50
45
40
35
30
25
20
15
10
5
0

TOTAL HARMONIC DISTORTION-PER CENT
25
20
15
10
5
0

TOTAL DISTORTION
GRID-№2 CURRENT

0 1000 2000 3000 4000 5000 6000
LOAD RESISTANCE-OHMS

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92CM-8918